

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/091515 A1

(51) International Patent Classification⁷: **H04B 1/38**
(21) International Application Number:
PCT/KR2005/000389
(22) International Filing Date: 11 February 2005 (11.02.2005)
(25) Filing Language: Korean
(26) Publication Language: English
(30) Priority Data:
10-2004-0008663
10 February 2004 (10.02.2004) KR
10-2004-0024432 9 April 2004 (09.04.2004) KR
10-2004-0078473 1 October 2004 (01.10.2004) KR
10-2004-0100583
2 December 2004 (02.12.2004) KR

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

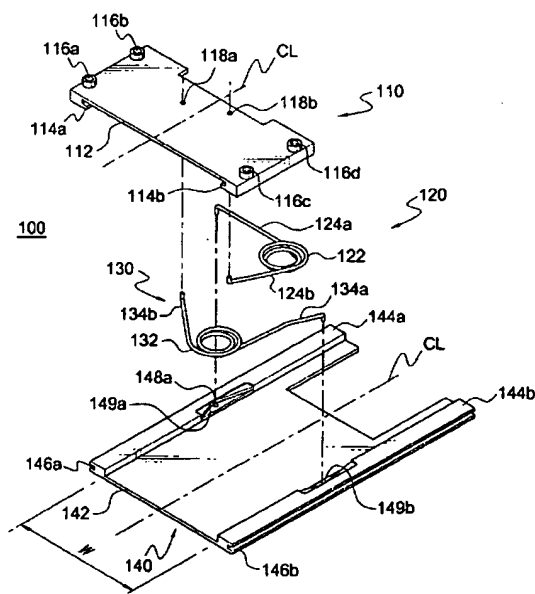
(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant and
(72) Inventor: LEE, HanSang [KR/KR]; 102-103, Gyeongnam Apt., 967, Dogok-dong, Gangnam-gu, Seoul 135-270 (KR).
(74) Agent: PARK, HeeJin; 401, Miele Haus Building, 607-10, Yeoksam-dong, Gangnam-gu, Seoul 135-080 (KR).

Published:
— with international search report

[Continued on next page]

(54) Title: SLIDING MECHANISM APPARATUS AND APPLIANCE INTEGRATED WITH THE SAME



(57) Abstract: Disclosed is a sliding mechanism apparatus used for slidably opening and closing a slider-type cellular phone. A guide member and a slider member are engaged with each other so as to enable to slide relative to each other. The end of one arm of a first torsion spring is connected to the slider member near the left edge thereof. The end of the other arm thereof is coupled to the right half area of the guide member. The end of one arm of a second torsion spring is connected to the slider member near the right edge thereof. The end of the other arm thereof is coupled to the left half area of the guide member. From the expanded original state of the first and second torsion springs, if an external force is exerted on the slider member or the guide member, the torsion springs are compressed into an acute angle and then spread again by means of the elastic force thereof. In this way, the slider member can move to the lowermost position or the lowermost position. In the first and second torsion springs, the distance between the ends of two arms is larger than at least half of the width of the slider member. Therefore, the first and second torsion springs can maximally utilize the width of the guide member while turning,

thereby extending the maximum travel distance of the slider member.

WO 2005/091515 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.